

## Product datasheet for **RC222719L4V**

### Cathepsin B (CTSB) (NM\_147780) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Cathepsin B (CTSB) (NM_147780) Human Tagged ORF Clone Lentiviral Particle
Symbol:	Cathepsin B
Synonyms:	APPS; CPSB; RECEUP
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_147780
ORF Size:	1017 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC222719).
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_147780.2</a>
RefSeq Size:	3945 bp
RefSeq ORF:	1020 bp
Locus ID:	1508
UniProt ID:	<a href="#">P07858</a>
Cytogenetics:	8p23.1
Protein Families:	Druggable Genome, Protease
Protein Pathways:	Antigen processing and presentation, Lysosome



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MW: 35.9 kDa

**Gene Summary:** This gene encodes a member of the C1 family of peptidases. Alternative splicing of this gene results in multiple transcript variants. At least one of these variants encodes a preproprotein that is proteolytically processed to generate multiple protein products. These products include the cathepsin B light and heavy chains, which can dimerize to form the double chain form of the enzyme. This enzyme is a lysosomal cysteine protease with both endopeptidase and exopeptidase activity that may play a role in protein turnover. It is also known as amyloid precursor protein secretase and is involved in the proteolytic processing of amyloid precursor protein (APP). Incomplete proteolytic processing of APP has been suggested to be a causative factor in Alzheimer's disease, the most common cause of dementia. Overexpression of the encoded protein has been associated with esophageal adenocarcinoma and other tumors. Both Cathepsin B and Cathepsin L are involved in the cleavage of the spike protein from the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) upon its entry to the human host cell. Multiple pseudogenes of this gene have been identified. [provided by RefSeq, Sep 2020]